UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
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<u>Ex parte</u> STEVE BECK and SCOTT ERIC LIPSKY
_____

Appeal No. 2006-0853
Application No. 09/721,441
Technology Center 3622
_____

HEARD: July 25, 2006
_____

Before OWENS, LEVY, and NAPPI, <u>Administrative Patent Judges</u>.

LEVY, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

This is a decision on appeal from the examiner's final rejection of claims 15 and 30-34. Claims 18-26 have been withdrawn from consideration.

We REVERSE.

BACKGROUND

The appellant's invention relates to Internet advertising techniques (specification, page 1). In particular, the invention includes a facility for analyzing the effectiveness of online advertising and dynamically targeting online advertising messages to users (id.).

Claim 15 is representative of the invention, and is reproduced as follows:

> 15. One or more computer memories collectively containing an advertising targeting data structure, comprising a plurality of entries, each entry corresponding to a user and containing:
>
> information identifying a test group to which the user belongs, the identified test group having been selected for the user without regard for user profile information, the identified test group indicating which of a plurality of sequences of conditions will be applied when an advertising request originating with the user is received; and
>
> for each of the conditions of the indicated sequence of conditions, information identifying a treatment subgroup to which the user belongs, the identified treatment subgroup having been selected for the user without regard for user profile information, the identified treatment subgroup indicating which of a plurality of advertising treatments will be applied when the condition is the first condition in the sequence of conditions to be satisfied.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Lazarus et al.   6,134,532   Oct. 17, 2000
    (Lazarus)   (Filed Nov. 14, 1997)

Benson   6,470,079   Oct. 22, 2002
                                      (Filed Jul. 09, 1999)

Langheinrich et al.   6,654,725   Nov. 25, 2003
    (Langheinrich)   (Filed Nov. 09, 1999

    Claim 15 stands rejected under 35 U.S.C. § 101 as being

directed to non-statutory subject matter.

    Claims 15, 30 and 31 stand rejected under 35 U.S.C. § 103(a)

as being unpatentable over Langheinrich in view of Benson.

    Claims 32-34 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Langheinrich in view of Benson and

Lazarus.

    Rather than reiterate the conflicting viewpoints advanced by

the examiner and the appellants regarding the above-noted

rejections, we make reference to the answer (mailed August 11,

2005) for the examiner's complete reasoning in support of the

rejections, and to the brief (filed May 24, 2005) and reply brief

(filed October 11, 2005) for the appellants' arguments

thereagainst.

    Only those arguments actually made by appellants have been

considered in this decision. Arguments which appellants could

have made but chose not to make in the brief have not been

considered. See 37 CFR § 41.37(c)(1)(vii)(eff. Sept. 13, 2004).

OPINION

In reaching our decision in this appeal, we have carefully

considered the subject matter on appeal, the rejections advanced

by the examiner, and the evidence of statutory subject matter and

obviousness relied upon by the examiner as support for the

rejections. We have, likewise, reviewed and taken into

consideration, in reaching our decision, appellants' arguments

set forth in the briefs along with the examiner's rationale in

support of the rejections and arguments in rebuttal set forth in

the examiner's answer.

Upon consideration of the record before us, we make the

determinations which follow. We begin with the rejection of

claim 15 under 35 U.S.C. § 101 as being directed to non-statutory

subject matter. The examiner's position (answer, page 3) is that

"[c]laim 15 attempts to set forth a data structure claim, but

merely sets forth a collection of data elements which are taken

to be non-functional descriptive material and therefore provide

only a mere arrangement of data." Additionally, it is argued

(answer, page 4) that unless appellant claims computer

programming that accomplishes the selection and the usage of the

data to select an ad, the claim merely sets forth data

identifying user's test groupings, which appears to be intended

use. The examiner adds (id.) that

> [t]here is no data structure in the claim and
> applicant's *desire* for the conditions to be applied
> does not provide any structure or relationship among
> data elements designed to support specific data
> manipulation functions.

Appellants assert (brief, page 7) that claim 15 constitutes

statutory subject matter because it is directed to a data

structure encoded in a computer readable medium. Appellants

dispute the examiner's contention that the claim is not directed

to a data structure, and asserts (brief, pages 8 and 9) that it

is rich with specific data manipulation functions that the

recited elements support. In particular, it is argued that the

recited information is used to identify a test group that has

been selected for the user which is in turn used to indicate

which of a plurality of sequences of conditions apply. It is

further argued that the recited information is used to identify a

treatment subgroup to which the user belongs, which in turn

indicates which advertising treatments will be applied.

The examiner responds (answer, page 9) that while the claim

preamble attempts to label the claimed data as data structure,

the examiner does not consider the claimed data expressing what
group a user belongs to, to be a data structure, but rather a
mere collection of data. With regard to appellants' assertion
(brief, page 10) that the data is used by the system to provide
functionality, the examiner asserts that "[t]he claim simply sets
forth the grouping data and not any positive system structure
which is capable of: 1) determining the grouping assignments, nor
2) using the groupings to apply conditions."

        We begin with claim construction. The claim recites "one or
more computer memories collectively containing an advertising
data structure comprising a plurality of entries, each entry
corresponding to a user and containing. . .." Because all of the
language in the claim following the term "containing" is part of
the data structure, we find that the claim is directed to one or
more computer memories containing a data structure. Thus, the
issue is whether appellants actually recite a data structure as
asserted by appellants, or whether the claim recites a
compilation or mere arrangement of data, as advanced by the
examiner. As correctly noted by the examiner (answer, page 3), a
data structure is "a physical or logical arrangement among data
elements, designed to support specific data manipulation
functions."

Turning to the language in the body of claim 15, we find
that the identified test group indicates which of a plurality of
sequences of conditions will be applied when an advertising
request from the user is received. We further find that "for
each of the conditions of the indicated sequence of conditions,
information identifying a treatment subgroup to which the user
belongs . . . and that the identified treatment subgroup
indicates which of a plurality of advertising treatments will be
applied when the condition is the first condition in the sequence
of conditions to be satisfied." Because the identified test
group indicates which of a plurality of sequences of conditions
will be applied, and the identified treatment subgroup indicates
which of a plurality of treatments will be applied when the
condition is the first condition in the sequence to be satisfied,
we find a logical or physical relationship between the data
elements designed to support specific data manipulation
functions, and do not agree with the examiner that the claim
recites a compilation or mere arrangement of data. From all of
the above, we find that the examiner has failed to establish a
prima facie case of non-statutory subject matter. Accordingly,
we cannot sustain the rejection of claim 15 under 35 U.S.C. § 101
as being directed to non-statutory subject matter.

We turn next to the rejection of claims 15, 30 and 31 under

35 U.S.C. § 103(a) as being unpatentable over Langheinrich in

view of Benson. In rejecting claims under 35 U.S.C. § 103, it is

incumbent upon the examiner to establish a factual basis to

support the legal conclusion of obviousness. See In re Fine, 837

F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so

doing, the examiner is expected to make the factual

determinations set forth in Graham v. John Deere Co., 383 U.S. 1,

17, 148 USPQ 459, 467 (1966). The examiner must articulate

reasons for the examiner's decision. In re Lee, 277 F.3d 1338,

1342, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). In particular, the

examiner must show that there is a teaching, motivation, or

suggestion of a motivation to combine references relied on as

evidence of obviousness. Id. at 1343. The examiner cannot simply

reach conclusions based on the examiner's own understanding or

experience - or on his or her assessment of what would be basic

knowledge or common sense. Rather, the examiner must point to

some concrete evidence in the record in support of these

findings." In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697

(Fed. Cir. 2001). Thus the examiner must not only assure that the

requisite findings are made, based on evidence of record, but

must also explain the reasoning by which the findings are deemed

to support the examiner's conclusion. However, a suggestion,
teaching, or motivation to combine the relevant prior art
teachings does not have to be found explicitly in the prior art,
as the teaching, motivation, or suggestion may be implicit from
the prior art as a whole, rather than expressly stated in the
references. The test for an implicit showing is what the
combined teachings, knowledge of one of ordinary skill in the
art, and the nature of the problem to be solved as a whole would
have suggested to those of ordinary skill in the art. In re Kahn,
441 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) citing
In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313 (Fed. Cir.
2000). See also In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d
2002, 2008 (Fed. Cir. 2002). These showings by the examiner are
an essential part of complying with the burden of presenting a
prima facie case of obviousness. Note In re Oetiker, 977 F.2d
1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden
is met, the burden then shifts to the applicant to overcome the
prima facie case with argument and/or evidence. Obviousness is
then determined on the basis of the evidence as a whole and the
relative persuasiveness of the arguments. See Id.; In re Hedges,
783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re
Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir.

1984); and <u>In re Rinehart</u>, 531 F.2d 1048, 1052, 189 USPQ 143, 147
(CCPA 1976).

The examiner's position (answer, pages 5-7)is that it would
have been obvious to provide an ad campaign with a series of
disclosed conditions to be checked to enable constraining of the
available ads to a few highly targeted available ads to provide
precise targeting for a variety of parameters. According to the
examiner, Langheinrich does not teach more than one simultaneous
campaign/group, but rather only teaches, for example, the left
half of figure 5. To overcome this deficiency of Langheinrich,
the examiner turns to Benson for a teaching of the idea of
running simultaneous advertising campaigns to which users are
exposed. The results and effectiveness of the simultaneous
campaigns are compared to determine the best campaign. In the
examiner's opinion, it would have been obvious to have provided
multiple simultaneous campaigns to determine the best campaign,
as this would provide the left side of appellants' figure 5 as
well as the right side. The examiner additionally asserts that
it would have been obvious to have provided the random assignment
of the user to each subgroup before or after each condition is
tested, as an obvious matter of design choice.

Appellants assert (brief, pages 12 and 13) that the examiner
fails to show some suggestion or motivation to combine the
references, and that some of the features of the claims are not
found in the references, alone or in combination. It is argued
(brief, page 13) the references do not describe appellants'
features relating to test groups, and that the examiner, by
comparing Benson's multiple advertising campaigns, is

> conflating different concepts and reaching for subject
> matter that is simply not contained in the references;
> neither Benson, nor any of the other applied references
> disclose assigning users to advertisement campaigns,
> let alone assigning users to test groups.

It is argued that there is no suggestion of grouping the users in
any of the references, and that the references do not show where
a test group has been selected without regard for user profile
information. Appellants additionally assert (brief, page 14)
that neither Langheinrich nor Benson mention any indicators
relating to application of a series of conditions. It is argued
(id.) that none of the references describe appellants' claim
features relating to treatment subgroups, and that

> unlike appellants' treatment subgroups, Langheinrich's
> filtered ads do not have the function of "indicating
> which of a plurality of advertising treatments will be
> applied when the condition is the first condition in
> the sequence of conditions to be satisfied."

Appellants additionally assert (brief, page 15) that

> claim 15 recites "a treatment subgroup" that indicates
> "which of a plurality of advertising treatments will be
> applied when the condition is the first condition in
> the sequence of conditions to be satisfied."

It is argued (id.) that

> while Langheinrich provides specific examples of
> conditions that may be applied in order to provide
> custom advertising, Langheinrich does not disclose that
> these conditions relate to a sequence of conditions.

The examiner responds (answer, page 10) that the conditions

are supplied sequentially and any TRUE condition would trigger

a random subgroup ad; and that this would occur for the first

TRUE condition.

In the reply brief, appellants assert (page 1) that claim 15

recites a treatment subgroup that indicates which of a plurality

of advertising treatments will be applied when the condition is

the first condition in the sequence of conditions to be

satisfied, and that identifying the first condition that is

satisfied in a condition sequence is different than identifying

just any condition that is identified. It is argued (reply

brief, page 2) that

> Langheinrich only provides specific examples of
> conditions that may be applied in order to provide
> custom advertising. Langheinrich does not contain any
> disclosure of applying a sequence of conditions in
> order to identify a first condition in the sequence of
> conditions that is satisfied, and presenting the

      advertising message associated with the first
      condition.

Appellants add that if there are multiple conditions, then all of

the conditions need to be satisfied for an advertisement to be

applicable. This is in contrast to the examiner's assertion that

any TRUE condition (i.e., any satisfied condition) would trigger

a random subgroup ad.

From our review of the record, we agree with appellants, in

particular for the reasons presented in the reply brief, that the

combined teachings of Langheinrich and Benson would not have

suggested the language of claim 15. Our reasoning is as follows.

We begin with appellants' last argument regarding "if there are

multiple conditions, then all of the conditions need to be

satisfied for an advertisement to be 'applicable,'" as recited in

claim 15.

From our review of Langheinrich, we find that the reference

is directed to a system and method for providing customized

advertising on the Web (col. 1, lines 1-3). It is disclosed that

it is known to specify targeting restraints that limit the

display of advertisements to conditions such as type of browser

or the time of day, and specific data such as age, gender,

income, etc. (col. 1, lines 32-47). Langheinrich discloses means

for performing a customization process which customizes the

electronic advertisements to be delivered to each client (col. 2,

lines 56-58). In particular, it is disclosed (col. 2, lines

61-67) that

> the method comprising the steps of decoding
> customization parameters embedded in a request from the
> client system, querying a database for a list of
> display probabilities for relative values of the
> customization parameters, computing an overall display
> probability for the overall request, and selecting an
> advertisement according to the display probability.

It is further disclosed (col. 3, lines 30-32) that an advertiser

remains in full control by being able to specify an arbitrary

number of display constraints.

From the disclosure of filtering advertisements given the

condition of the user request, we find that if a single condition

was provided and satisfied, the advertisement would be indicated

based on the condition being satisfied. However, claim 15

requires a sequence of conditions, and a single condition would

not meet the claim language because to be a sequence, at least

two conditions are required. With regard to the plural

conditions listed, we find no disclosure of applying the

conditions in a sequence. Even if they were applied in a

sequence, the claim would not be met because Langheinrich applies

all of the conditions and selects an advertisement based upon

advertisements remaining after the conditions are met. We find

no teaching or suggestion in Langheinrich, or in Benson, for

indicating which treatment will be applied when the condition is

the first condition to be satisfied in the sequence of

conditions.

     We are not persuaded by the examiner's assertion (brief,

page 10) that "any TRUE condition would trigger a random subgroup

ad; this would occur for the first TRUE condition" because in

Langheinrich an advertisement is randomly selected among the

advertisements that remain after the filtering conditions are

satisfied. There is no indication which of a plurality of

advertising treatments will be applied when the condition is the

first condition in the sequence of conditions to be satisfied, as

required by claim 15.

     Turning to Benson, the reference is relied upon and teaches

having multiple simultaneous filtering campaigns. Even if

combined with Langheinrich, Benson would not make up for the

deficiencies of Langheinrich as outlined, supra, because Benson

neither teaches nor suggests that the identified treatment

subgroup indicates which of a plurality of advertising treatments

will be applied when the condition is the first condition in the

sequence of conditions to be satisfied, as recited in claim 15.

Accordingly, for at least these reasons, we find that the combined teachings of Langheinrich and Benson fail to establish a prime facie case of obviousness of claim 15. The rejection of claim 15 under 35 U.S.C. § 103(a) therefore cannot be sustained. As claim 30 contains similar language, the rejection of claim 30, and claim 31 which depends therefrom, cannot be sustained.

We turn next to the rejection of claims 30-32 under 35 U.S.C. § 103(a) as being unpatentable over Langheinrich in view of Benson and Lazarus. We cannot sustain the rejection of claims 32-34 because Lazarus fails to make up for the basic deficiencies of the combination of Langheinrich and Benson.

CONCLUSION

To summarize, the decision of the examiner to reject claim 15 under 35 U.S.C. § 101 is reversed. The decision of the examiner to reject claims 15 and 30-34 under 35 U.S.C. § 103 is reversed.

REVERSED

TERRY J. OWENS   )
Administrative Patent Judge   )
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) BOARD OF PATENT
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Administrative Patent Judge   )   AND
)   INTERFERENCES
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